



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,200	11/14/2003	Stefan Ihde	67185-004	2663
29493	7590	04/03/2006	EXAMINER	
HUSCH & EPPENBERGER, LLC 190 CARONDELET PLAZA SUITE 600 ST. LOUIS, MO 63105-3441				WERNER, JONATHAN S
ART UNIT		PAPER NUMBER		
		3732		

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/714,200	IHDE, STEFAN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jonathan Werner	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 1/9/06.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 23-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 23-42 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. This action is in response to applicant's amendment received on 1/9/06.

***Claim Objections***

2. Claims 34 and 40-41 are objected to because of the following informalities: as understood, claim 34 should be dependent on claim 33, and claims 40-41 should each be dependent on claim 39. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 25-27, 32, 34, 37 and 40-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 25 recites the limitation "said shaft." There is insufficient antecedent basis for this limitation in the claim. As to claim 27, it is not clear what the applicant means by the phrase "alternate comprising corrugation." As to claim 32, it is not clear what the spiral is. Claim 34 recites the limitation "depressions." There is insufficient antecedent basis for this limitation in the claim. Claim 37 recites the limitation "said portions comprising ridges." There is insufficient antecedent basis for this limitation in the claim. Claims 40-41 recite the limitation "marginal zone." There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

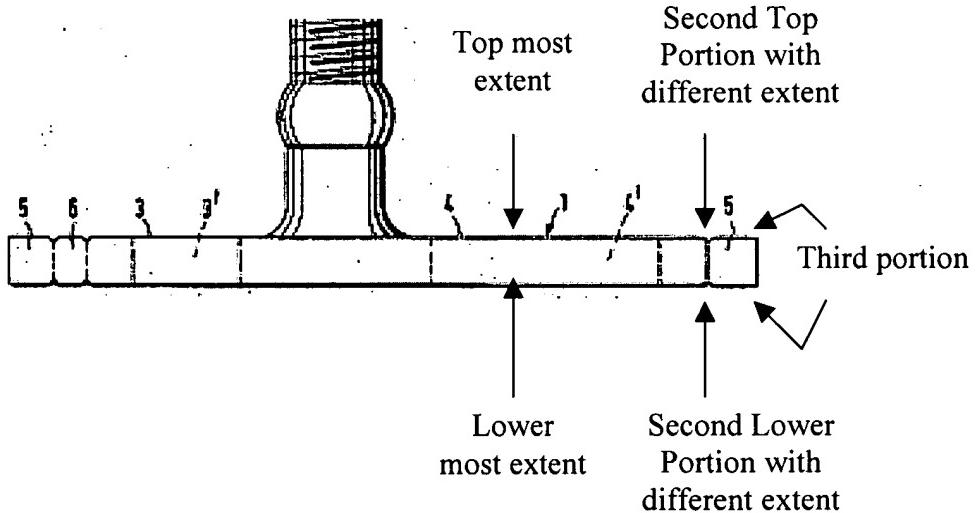
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 23-30, 35, 39 and 41-42 are rejected, as understood, under 35 U.S.C. 102(b) as being anticipated by Strel (US 4,344,757). As to claims 23 and 42, Strel discloses a dental implant comprising a post (2) having a first end a second end; said first end having a mount for a device to be implanted (Figure 3 and 5); said second end being attached to a base (Figures 1 and 2); said base being substantially orthogonal to said post in at least two non-parallel directions (Figures 1 and 2); said base having a bottom surface and said bottom surface having a lower most extent (Figure 1 below); and said base having a top surface having a first portion having a topmost extent (Figure 1 below); and at least one of said top surface or said bottom surface having a second portion having a second extent different from said topmost extent or said lower most extent (Figure 1 below). Examiner notes that no description or support of said portions are given in the applicant's specification, and hence are interpreted as previously described. As to claim 24, at least one of said top surface or said bottom surface of said base has a third portion, said third portion being equivalent to said top most extent and said third portion being separated from said first portion by said second portion (Figure 1 below). As to claim 25, Figures 1 and 2 show, for example, a first group of portions (5,6,7) having a topmost extent, and a second group of portions (8) having an extent in a direction parallel to the post that is less than the extent of the first portions. As to claim 26, the first portions (5,6,7) and the second portions (8) alternate

periodically as seen in Figures 1 and 2. As to claim 27, the first portions and the second portions are alternating corrugations (8). As to claims 28 and 29, at least one of said portions has a sharp edge (Figure 1) and at least one of said portions constitutes a ridge (Figure 1). As to claim 30, at least one of said portions constitutes a trough (8). As to claim 35, the base has an outer perimeter and said outer perimeter includes at least three substantially straight edges (Figure 2). As to claim 39, Figures 1 and 2 show the second portion is at a marginal zone of said base, said marginal zone being substantially along a portion of a periphery of said base. As to claim 41, the marginal zone comprises reentrant angles (Figure 1).



*Figure 1 – Street (US 4,344,757)*

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Streel in view of Kurpis (US 4,768,956). Streel discloses a dental implant as previously described wherein at least one of said portions is curvilinear (5), but fails to show at least one of said portions of the curve is substantially concentric with the post or comprises a spiral. Kurpis, however, teaches in Figure 5 a dental implant with a base (126) with a topmost portion (104) and a lowermost portion that are both spirals and wherein the curvilinear parts are concentric with a post (118). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make one of said portions of the curve substantially concentric with the post or have it comprise a spiral in order reduce the incidence of trauma and to use the implant in a wide buccal lingual bone dimension as taught by Kurpis.

6. Claims 33-34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Streel in view of Baege et al. (US 5,965,006). As to claims 33 and 37, Streel discloses a dental implant as previously described, but fails to show at least one of said portions comprises a bowl-like depression. Baege, however, teaches a prosthetic device for implanting in bone which has a portion that comprises bowl-like depressions (Figure 1a). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make at least one of the portions of the implant have bowl-like depressions substantially vertical on a base oriented opposite from the direction of insertion in order to provide a sufficient anchoring depth for ingrowing bone matter during osseointegration as taught by Baege. As to claim 34, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make said depression have a depth in a range from about 0.05 mm to about 0.25 mm, since it has

been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

7. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Streel in view of Karmaker (6,186,791). Streel discloses a dental implant as previously described, but fails to show the first and second portions comprise barbs oriented to resist extraction of the implant in a direction opposite the direction of insertion. Karmaker, however, teaches a dental post implant comprised of barbs (Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art to add barbs to the implant portions in order to aid in the retention of the implant in the bone as taught by Karmaker.

8. Claims 38 and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Streel in view of Grafelmann (US 4,538,304). Streel discloses a dental implant as previously described with a marginal zone (leftmost region 8) substantially along a portion of a periphery of the base that varies in a radial distance from the post, but fails to show the first and second portions vary in extent radially. Grafelmann, however, teaches a prosthetic device for implanting in bone which has a base with a first height (top of Figures 2,4) and a second shorter height at a marginal zone that is along a portion of a periphery of said base (bottom of Figures 2,4), wherein the first portions and second portions vary in extent radially and the marginal zone varies in radial distance from the post. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make the first and second portions vary in extent

radially in order to promote a better retention of the device within the bone and the surrounding body tissue as taught by Grafelmann.

***Response to Arguments***

Examiner acknowledges applicant's cancellation of claims 1-22. Applicant's arguments with respect to claims 23-42 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

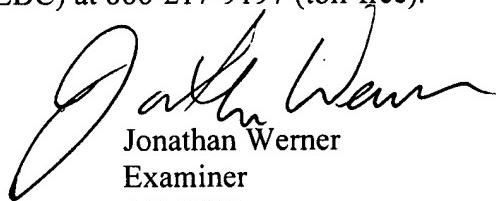
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Werner  
Examiner  
AU 3732

3/20/06



MELBA N. BUMGARNER  
PRIMARY EXAMINER